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ABSTRACT

This study utilized a recognition procedure to directly assess preschool children's ability to discriminate between programs and commercials in an actual viewing situation. Seventy-two children, equally grouped by sex and age (3, 4, and 5 years) were individually presented with three videotapes. Each tape contained a sample of a 48 ten-second segments of TV programs and commercials; one tape was in a video-only mode, one in audio-only mode and the third in both video and audio. Results indicated that accuracy increased with age, but that even 3-year-olds could discriminate commercials from programs. Errors appeared to be in the direction of misidentifying TV program segments as commercials rather than vice-versa. There were fewer errors for commercials directed at children than for those directed at adults. The effect of mode interacted with age: 4-year-olds discriminated best in the audio-video mode while the 3- and 5-year-olds discriminated equally well in all three modes. The influence of three individual difference characteristics on recognition abilities was additionally investigated: age, children's intellectual skills, the Peabody Picture Vocabulary Test, and parents' estimates of children's exposure to television. Age and PPVT scores were positively correlated with discrimination scores, but TV exposure was negatively correlated with discrimination scores. (Author/SS)

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Preschoolers' Discrimination of Television Programming and Commercials

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It is now beyond debate that young children spend a significant portion of their lives watching television programming and consequently, television advertising. Estimates of amount of television viewing suggest that preschoolers are typically exposed to in excess of 20,000 TV commercials a year (Adler, 1977). A central issue in the concern of the effects of this exposure is children's awareness of TV advertising. The FTC, for example, is currently considering two petitions which urge promulgation of a trade regulation rule regarding TV advertising to children. One basis for the petitions is that children's naivete make commercials "unfair and deceptive". Evidence for this allegation comes from previous research which indicates that it is not until well beyond the preschool years, that children successfully perceive television commercials as distinct from programming. Two types of studies have supported this contention. In one series of studies, researchers have interviewed children of different ages about the differences between programs and commercials. Findings from this research consistently demonstrate that children younger than eight or nine years appear very confused about the difference between the two (Blatt, Spencer, & Ward, 1972; Robertson & Rossiter, 1974; Ward, Reale, & Levinson, 1972; Ward & Wackman, 1973; Ward, Wackman, & Wartella, 1977). However, an obvious confound in these studies is children's expository skills. Very simply, older

children verbally express themselves better than younger children, particularly in response to abstract questions. Other studies have monitored children's visual attention to television. A lack of difference in attention levels between programming and commercials has been interpreted by some researchers as evidence of young children's lack of awareness of the difference between the two (Ward, Levinson, & Wackman, 1972). Zuckerman, Ziegler and Stevenson (1978), however, reported that younger children, not older children, tended to change levels of attention from programs to commercials. Wartella and Ettema (1974) suggest that very young children are perceptually bound and thus may be more sensitive to shifts from programming to commercials. In either case, interpretation of attention data in terms of cognitive processing requires a questionable inference on the part of the researcher. Children could be attending solely on the basis of visual and auditory attributes quite apart from their ability to perceive a particular TV message as a commercial or a program. No one has directly assessed children's ability to discriminate between programs and commercials in an actual viewing situation. In the present study we used a recognition procedure in which preschool children were presented with a series of 10 second TV segments and asked to identify them as programs or commercials.

The television programs used in the study represented a stratified random sample based on Nielson reports of preschool

viewing times (Adler, 1977). The commercials were selected from the same time periods. Each segment consisted of the first 10 seconds of the commercial or the program (after the opening theme and credits). We edited the segments onto three videotapes such that each tape contained a random order of 14 TV programs, 7 commercials judged to have been directed at children (primarily from Saturday morning TV) and 7 commercials judged to have been directed at adults. There was a three second blank on the tape between segments.

The subjects were 72 lower-middle class preschoolers equally divided with respect to age (3, 4, and 5 years) and sex who were enrolled in private day care centers in the Kent area. We saw the children individually in three sessions. In the first session the children were given a warm-up task during which they viewed ten short TV segments and were asked to identify them as "a cartoon" or "not-a-cartoon". We wanted to use a warm-up task which demonstrated to the children that they were to make a two-choice discrimination although we didn't want to prime them to a program-commercial distinction. When we felt that the children understood the procedure we explained that the task was now to identify each segment as a "commercial" or "program". We never defined these terms for the subjects. The first experimental videotape was then played with both the sound and audio tracks intact and the child's responses were recorded.

We were also interested in whether the children could make their discriminations on the basis of either the audio or video attributes of the message alone or whether they required both the sound and picture together. In the second session we presented each child with the remaining two video tapes - one in an audio-only mode and the other in a video-only mode. The three experimental videotapes were counterbalanced across mode and the order of mode in session 2 was counterbalanced across subjects.

In the third session the Peabody Picture Vocabulary Test was administered to the children. A questionnaire sent home to the parents provided family demographic information. The parents also completed a weekly TV program checklist which provided us with a weekly estimate of the number of hours of television viewed by the child.

Preliminary analyses of the discrimination data yielded neither a tape effect nor an order of mode in session 2 effect. The percent correct identifications were then analyzed using a 3 (age) x 2 (sex) x 3 (mode) x 2 (segment type) mixed analysis of variance with mode and segment type the within subjects factors. The major finding in the study was that the mean percent correct discriminations was significantly above chance responding at each age ($p < .05$). This ability to correctly identify TV messages, however, did increase with age. The five year olds discriminated better (79 percent) than the three and four year olds

(66 and 64 percent, respectively) who did not differ from one another ($p < .01$). The actual percentage of subjects at three, four, and five years of age who significantly discriminated above chance was 50, 50, and 80, respectively.

We did find a significant mode main effect and an age x mode interaction. Post hoc analyses revealed that the four year olds discriminated best in the AV mode while the three and five year olds discriminated equally well in all three modes ($p < .05$). This interaction can be seen in the slide labeled Figure 1.

A segment type main effect indicated that programs were more difficult to identify than commercials ($p < .001$). We speculate that since 10 seconds of a half hour or one hour program represents a much smaller proportion than 10 seconds of a 30 or 60 second commercial, the commercial segment actually may have provided more information needed to make a correct identification.

We examined response differences between commercials directed at adults and commercials directed at children in a 3 (age) x 2 (sex) x 3 (mode) x 2 (commercial type) analysis of variance. The results indicated that adult commercials were more difficult to identify than children's commercials but only for the four and five year olds ($p < .05$). This can be seen in the next slide, labeled Figure 2. One possible explanation for the result is exposure to television. Since children don't start watching television on a regular

basis until around 2½ years of age (cf., Anderson, Alwitt, Lorch, & Levin, in press), the four and five year olds probably had considerable more exposure to children's commercials than the three year olds. This familiarity with these messages enabled them to better identify those particular segments.

We were also interested in individual difference characteristics associated with the ability to correctly identify TV messages as programs or commercials. We hypothesized that this ability would be positively correlated with the children's intellectual skills. We also hypothesized that this ability would be positively correlated with preschoolers' exposure to television. That is, children who watch large amounts of TV have more experience with different TV messages and should be better able to identify those messages correctly. Thus we examined the correlations between discrimination scores and the individual difference variables of age, PPVT scores, and parental estimates of the number of hours of television viewed by the child at home. Consistent with the analyses of variance, discrimination scores and age were positively correlated ($r = .31$, $p < .01$). Discrimination scores and PPVT scores were also positively correlated, thus, supporting our first hypothesis ($r = .24$, $p < .05$). However, contrary to our second hypothesis, the correlation between discrimination scores and amount of home TV viewing was

negative ($r = -.44$, $p < .05$). Initially puzzling, this finding seemed more interpretable in view of a negative correlation between amount of home TV viewing and PPVT scores ($r = -.41$, $p < .05$). The brighter children tended to watch less television at home. Recognizing the danger of inferring causality from correlational data, it may be that accuracy in the discrimination task depends more on preschoolers' intellectual skills than on exposure to TV. For bright children minimal exposure to television may suffice to learn to identify commercials and programs; for less bright children, increased exposure to TV does not by itself guarantee cognitive awareness of the two different types of television messages.

The present study thus suggests, in contrast to the findings of previous research, that young children can successfully identify TV messages as commercials or programs. Of course, one critical issue not addressed by this study is children's knowledge of the purpose of TV advertising. Although preschoolers can correctly identify commercials or programs we still don't know if they understand the intent or motives of commercials. Current research which suggests that this ability is not acquired until age eight or nine years is still open to the criticism of a verbal ability confound. We, in our lab, are now exploring techniques to measure children's understanding of television advertising which minimize the demands on their verbal productive skills.

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Figure 1

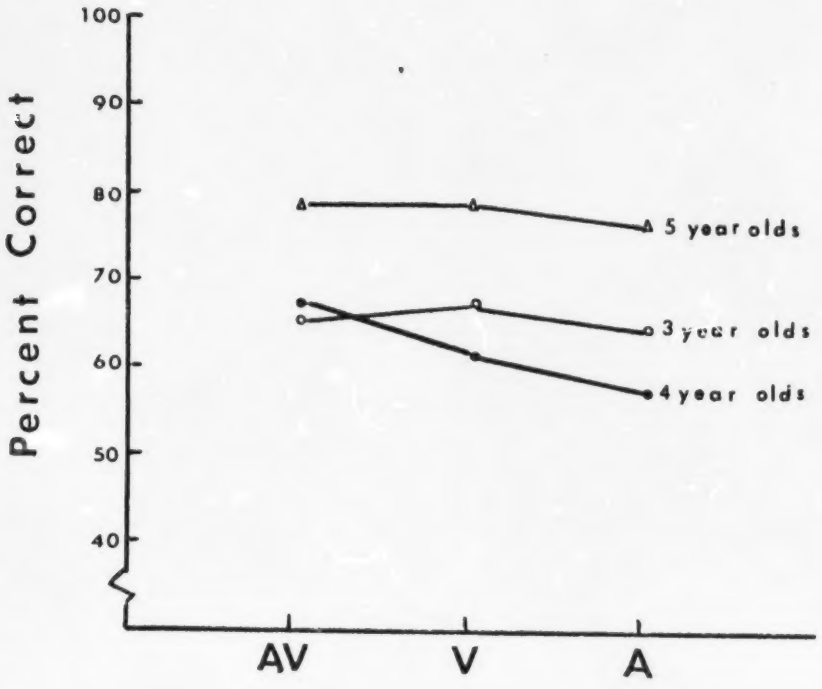

Figure 2